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मानक

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Mazdoor Kisan Shakti Sangathan

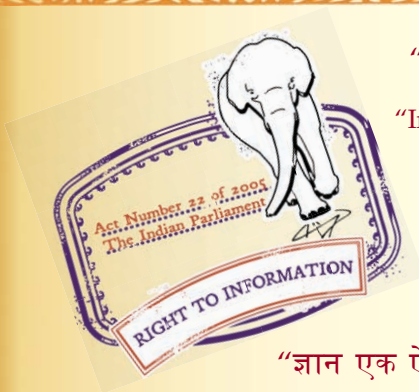
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 8615 (1993): ACCEPTANCE CONDITIONS OF MECHANICAL
DIVIDING HEADS FOR MACHINE TOOLS – TESTING OF ACCURACY [PGD
18: Industrial and Production Automation Systems and
Robotics]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

स्वतः विमोचन 7/24 टेपर वाले स्टब मिलिंग आर्वर — विशिष्ट
(पहला पुनरीक्षण)

Indian Standard

**STUB MILLING ARBORS WITH SELF-RELEASE
7/24 TAPER — SPECIFICATION**

(First Revision)

UDC 621-914 : 621-9-229-22 : 621-9-434-5

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**BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002**

FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Milling Cutters, Saws, Gear Cutting Tools and Broaches Sectional Committee had been approved by the Production Engineering Division Council.

This standard was first published in 1977. In this revision various dimensions and tolerances have been brought in line with the practices followed at international level and in the industry.

The committee responsible for the formulation of this standard is given at Annex A.

In the preparation of this standard considerable assistance has been derived from ISO 3937-1977 'Cutter arbors with tenon drive — Dimensions', issued by the International Organization for Standardization (ISO).

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

STUB MILLING ARBORS WITH SELF-RELEASE 7/24 TAPER — SPECIFICATION

(First Revision)

1 SCOPE

This standard covers the dimensions and general requirements of stub milling arbors with self-release 7/24 tapers for cutters with cross slots.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

IS No.	Title
4218 (Part 5) : 1979	ISO metric screw threads: Part 5 Tolerances
6310 : 1971	Dimensions for interchangeability of milling cutters and milling arbors with tenon drive
8611 : 1988	Technical supply conditions for milling arbors and accessories (<i>first revision</i>)
8621 : 1977	Retaining screws for milling arbors

3 DIMENSIONS

3.1 The diameters, which have been adopted in this standard are those most commonly used and correspond to the values given in IS 6310 : 1971.

3.2 The shoulder, whether parallel or tapered, between the flange of diameter d_1 and the parallel portion of diameter d is optional. With or without the shoulder, however, the diameter of the flange locating face should not in any case be less than d_1 .

3.3 Dimensions for milling arbors shall be as given in Table 1.

3.4 Dimensions for detachable driving tenon shall be as given in Table 2.

4 GENERAL REQUIREMENTS

4.1 The tolerance for screw threads shall be 6H according to IS 4218 (Part 5) : 1979.

4.2 The retaining screw shall be according to IS 8621 : 1977.

4.3 Material, geometrical accuracies and other requirements not covered in this standard shall be according to IS 8611 : 1988.

5 TEST

Testing shall be carried out according to IS 8611 : 1988.

6 DESIGNATION

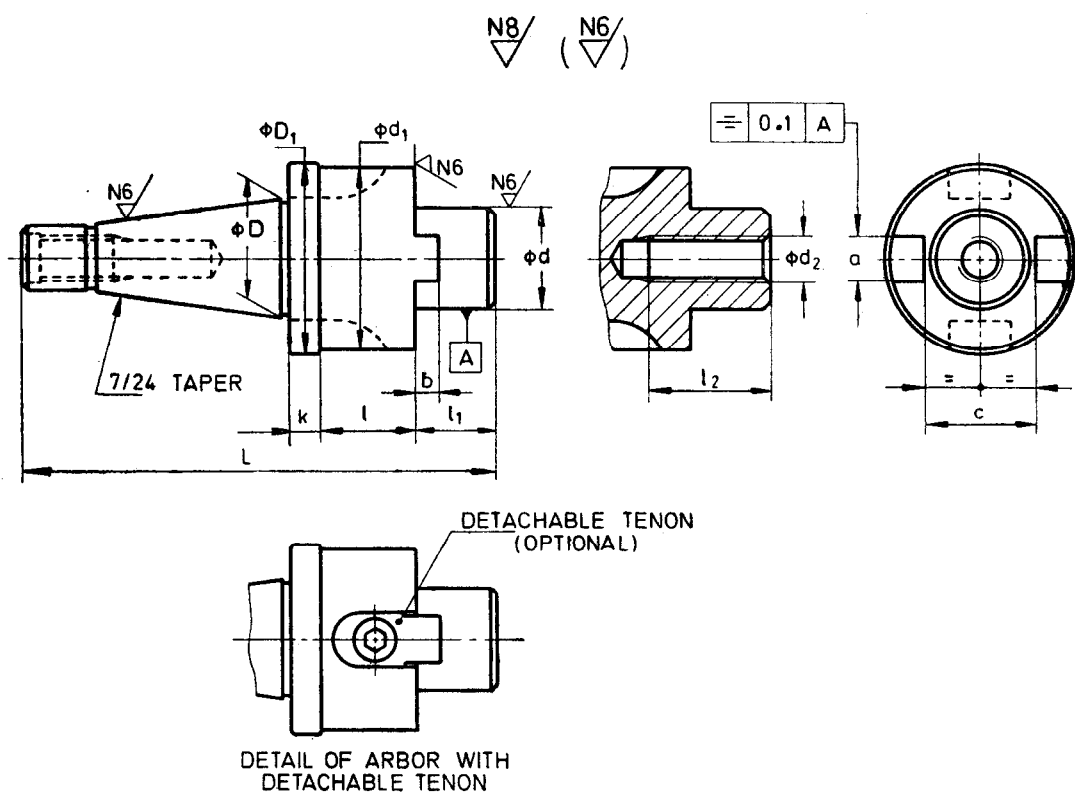
6.1 A stub arbor complete with self-release 7/24 taper 30 having arbor diameter $d = 22$ mm and arbor length $L = 122$ mm shall be designated as:

Stub Arbor 7/24 Taper IS 8615
30 × 22 × 122

6.2 A detachable driving tenon suitable for arbor dia 22 mm conforming to this standard shall be designated as:

Detachable driving tenon IS 8615 22

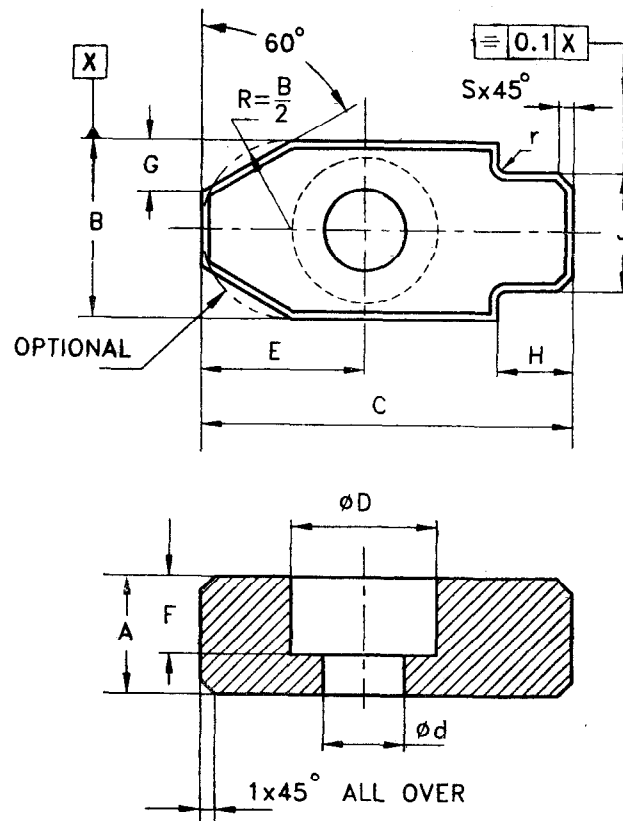
Table 1 Dimensions for Stub Milling Arbors with Self-release 7/24 Taper
(Clause 3.3)



All dimensions in millimetres.

7/24 Taper No.	D	D_1	d h6	l_1 Max	d_1 Min		a h11	b h11	c Min	l_2	d_2	L Max	k
30	31.75	50	16	17	32	25	8	5.0	17.0	22	M8	120	8
			22	19	40	25	10	5.6	22.5	28	M10	122	
			27	21	48	25	12	6.3	28.5	32	M12	124	
40	44.45	63	16	17	32	25	8	5.0	17.0	22	M8	147	10
			22	19	40	25	10	5.6	22.5	28	M10	149	
			27	21	48	25	12	6.3	28.5	32	M12	151	
			32	24	58	40	14	7.0	33.5	36	M16	169	
			40	27	70	40	16	8.0	44.5	45	M20	172	
45	57.15	100	22	19	40	40	10	5.6	22.5	28	M10	179	10
			27	21	48	40	12	6.3	28.5	32	M12	181	
			32	24	58	40	14	7.0	33.5	36	M16	184	
			40	27	70	40	16	8.0	44.5	45	M20	187	
50	69.85	100	27	21	48	40	12	6.3	28.5	32	M12	203	12
			32	24	58	40	14	7.0	33.5	36	M16	206	
			40	27	70	40	16	8.0	44.5	45	M20	209	
			50	30	90	40	18	9.0	55.0	50	M24	212	

Table 2 Dimensions for Detachable Driving Tenon
(Clause 3.4)



All dimensions in millimetres.

Suitable for Arbor Dia	J h11	B h11	A	C	H h11	E	r Max	S	d H13	D H13	F $+0.4$ 0	G
16	8	12	8	25	5.1		0.6	1.0	5.5	9.8	5.7	3.5
22	10	14	8	26	5.7	11						4.0
27	12	14	10	28	6.4			1.2				4.0
32	14	16	12	30	7.1		0.8		6.6	11.0	6.8	5.0
40	16	18	14	32	8.1	12		1.6				5.5
50	18	20	16	34	9.1		1.0	2.0				6.5

ANNEX A

(Foreword)

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Milling Cutters, Saws, Gear Cutting Tools and Broaches Sectional Committee, PE 11

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Representing

Sandvik Asia Ltd, Pune

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Doc No. PE 11 (4934)

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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AMENDMENT NO. 1 DECEMBER 2000
TO
IS 8615 : 1993 STUB MILLING ARBORS WITH SELF-RELEASE
7/24 TAPER — SPECIFICATION
(First Revision)

(Page 2, Table 1) — Substitute the following column headings for the existing :

7/24 Taper No.	<i>D</i>	<i>D</i>₁	<i>d</i> h6	<i>l</i>₁ Max	<i>d</i>₁ Min	<i>l</i>	<i>a</i> h11	<i>b</i> h11	<i>c</i> Min	<i>l</i>₂	<i>d</i>₂	<i>L</i> Max	<i>k</i>
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(BP 11)